

PENDING CLAIMS AS AMENDED

Please amend the claims as follows:

1. (Currently Amended) A satellite communication system comprising:  
 $m$  primary satellites, each equipped to project  $N/m$  beams onto an area, to collectively create  $N$  beam spots to cover the area, wherein the  $m$  primary satellites continuously project the  $N/m$  beams to the  $m$  primary satellites full capacity,  $m$  being an integer greater than 1; and  
 $n$  back up satellites, each equipped to project  $N/m$  beams onto the area, wherein the back up satellites continuously project the  $N/m$  beams to the  $n$  back up satellites full capacity, to enable each of the  $n$  back up satellites to be able to replace any one of the  $m$  primary satellites on demand,  $n$  being an integer equal to or greater than 1.
  
2. (Previously Presented) The satellite communication system of claim 1, wherein:  
 said  $m$  primary satellites are equipped to project  $N/m$  beams onto and across an area in a loosely-packed array manner, with sub-areas covered by a beam spot separated from other sub-areas covered by another beam spot by one beam width, and each equipped to facilitate communication on 1 of  $m$  band of frequencies; and  
 said  $n$  back up satellites are also equipped to project  $N/m$  beams onto and across the area in a loosely-packed array manner, with each sub-area covered by a beam spot separated from another sub-area covered by another beam spot by one beam width, and each equipped to facilitate communication on 1 of  $m$  band of frequencies.
  
3. (Original) The satellite communication system of claim 1, wherein  $m$  equals 3.
  
4. (Original) The satellite communication system of claim 1, wherein  $n$  equals 1.

5. (Original) The satellite communication system of claim 1, wherein the area comprises a plurality of zones, each having a peak demand at a different time period.

6. (Original) The satellite communication system of claim 1, wherein the satellite communication system facilitates data access by user terminals.

7. (Currently Amended) A satellite communication system comprising:  
 $m$  primary satellites, each equipped to project  $N/m$  beams onto and across an area in a loosely-packed array manner to collectively create  $N$  beam spots to cover the area, wherein the primary satellites continuously project the  $N/m$  beams to the  $m$  primary satellites full capacity, with each sub-area covered by a beam spot separated from another sub-area covered by another beam spot by one beam width,  $m$  being an integer greater than 1; and  
 $n$  back up satellites, each also equipped to project  $N/m$  beams onto and across the area in a loosely-packed array manner, wherein the back up satellites continuously project the  $N/m$  beams to the  $n$  back up satellites full capacity, with each sub-area covered by a beam spot separated from another sub-area covered by another beam spot by one beam width, to enable a selected one of the  $n$  back up satellites to replace any one of the  $m$  primary satellites on demand,  $n$  being an integer equal to or greater than 1.

8. (Original) The satellite communication system of claim 7, wherein  $m$  equals 3.

9. (Original) The satellite communication system of claim 7, wherein  $n$  equals 1.

10. (Original) The satellite communication system of claim 7, wherein the area comprises a plurality of zones, each having a peak demand at a different time period.

11. (Original) The satellite communication system of claim 7, wherein the satellite communication system facilitate Internet access by user terminals.

12. (Currently Amended) A satellite communication system comprising:  
 $m$  primary multi-beam satellites, wherein the primary multi-beam satellites continuously project the multi-beams to the primary satellites full capacity, each equipped to facilitate communication on 1 of  $m$  bands of frequencies,  $m$  being an integer greater than 1; and  
 $n$  back up multi-beam satellites, wherein the back up multi-beam satellites continuously project the multi beams to the back up satellites full capacity, each equipped to facilitate communication on 1 of  $m$  bands of frequencies,  $n$  being an integer equal to or greater than 1.
13. (Original) The satellite communication system of claim 12, wherein  $m$  equals 3.
14. (Original) The satellite communication system of claim 12, wherein  $n$  equals 1.
15. (Original) The satellite communication system of claim 12, wherein the satellite communication system facilitates access by user terminals to a communications network.
16. (Original) The satellite communication system of claim 15, wherein the communications network comprises the Internet.
17. (Original) The satellite communication system of claim 15, wherein the communications network comprises an enterprise Intranet.

18. (Currently Amended) A satellite communication system comprising:  
 $m$  primary satellites, each equipped to project  $N/m$  beams onto an area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity,  $m$  being an integer greater than 1; and  
 $n$  back up satellites, each equipped to project  $N/m$  beams onto the area, wherein the back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, to enable a

selected one of the  $n$  back up satellites to replace any one of the  $m$  primary satellites on demand,  $n$  being an integer equal to or greater than 1.

19. (Original) The satellite communication system of claim 18, wherein  $m$  equals 3.

20. (Original) The satellite communication system of claim 18, wherein  $n$  equals 1.

21. (Original) The satellite communication system of claim 18, wherein the area comprises a plurality of zones, each having a peak demand at a different time period.

22. (Canceled)

23. (Canceled)

24. (Currently Amended) A method comprising:

configuring each of  $m$  primary satellites to project  $N/m$  beams onto and across an area in a loosely-packed array manner to collectively create  $N$  beam spots to cover the area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity, with each sub-area covered by a beam spot separated from another sub-area covered by another beam spot by one beam width,  $m$  being an integer greater than 1; and

configuring each of the  $m$  primary satellites to facilitate communication on 1 of  $m$  band of frequencies;

configuring on demand a selected one of  $n$  back up satellites to project  $N/m$  beams onto and across the area in a loosely-packed array manner, wherein the back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, with each sub-area covered by a beam spot separated from another sub-area covered by another beam spot by one beam width, to replace one of the  $m$  primary satellites with the selected one of the  $n$  back up satellites,  $n$  being equal to or greater than 1; and

configuring the selected one of the  $n$  back up satellites to facilitate communication over 1 of  $m$  band of frequencies on one beam, the 1 of  $m$  band of frequencies being the 1 of  $m$  band of frequencies previously employed by the replaced primary satellite,  $n$  being an integer equal to or greater than 1.

25. (Canceled)

26. (Currently Amended) A method comprising:

configuring each of  $m$  primary multi-beam satellites, wherein the primary satellites continuously project the multi-beams to the primary satellites full capacity, to facilitate communication on 1 of  $m$  band of frequencies,  $m$  being greater than 1; and

configuring a selected one of  $n$  back up multi-beam satellites, wherein the back up satellites continuously project the multi-beams to the back up satellites full capacity, to facilitate communication on 1 of  $m$  band of frequencies, the 1 of  $m$  band of frequencies, the 1 of  $m$  band of frequencies being the 1 of  $m$  band of frequencies previously employed by the replaced primary multi-beam satellite,  $n$  being an integer equal to or greater than 1.

27. (Currently Amended) A method comprising:

configuring each of  $m$  primary satellites to project  $N/m$  beams onto and across an area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity; and

configuring on demand a selected one of  $n$  back up satellites to project  $N/m$  beams onto and across the area coincidence with one of the  $m$  primary satellites, wherein the selected one of  $n$  back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, is configured to project its  $N/m$  beams onto and across an area, to replace the one primary satellite with the selected one of the  $n$  back up satellites,  $n$  being equal to or greater than 1.

28. (Currently Amended) A gateway for communicating signals through a satellite communication system comprising:

means for transferring signals through  $m$  primary satellites, each equipped to project  $N/m$  beams onto an area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity,  $m$  being an integer greater than 1; and

means for transferring signals through  $n$  back up satellites, each equipped to project  $N/m$  beams onto the area, wherein the back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, to enable a selected one of the  $n$  back up satellites to replace any one of the  $m$  primary satellites on demand,  $n$  being an integer equal to or greater than 1.

29. (Currently Amended) A user terminal for communicating signals through a satellite communication system to at least one gateway comprising:

means for transferring signals through  $m$  primary satellites, each equipped to project  $N/m$  beams onto an area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity,  $m$  being an integer greater than 1; and

means for transferring signals through  $n$  back up satellites, each equipped to project  $N/m$  beams onto the area, wherein the back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, to enable a selected one of the  $n$  back up satellites to replace any one of the  $m$  primary satellites on demand,  $n$  being an integer equal to or greater than 1.

30. (Currently Amended) Apparatus for use in a satellite communication system comprising:

means for configuring  $m$  primary multi-beam satellites to project  $N/m$  beams onto an area to collectively create  $N$  beam spots to cover the area, wherein the primary satellites continuously project the  $N/m$  beams to the primary satellites full capacity, with  $m$  being an integer greater than 1; and

means for configuring a selected one of  $n$  back up multi-beam satellites to project  $N/m$  beams onto the area, wherein the back up satellites continuously project the  $N/m$  beams to the back up satellites full capacity, to replace one primary satellite with the selected one of the  $n$  back up satellites,  $n$  being equal to or greater than 1.